

**OXIDE SUPERCONDUCTING WIRE****ABSTRACT OF THE DISCLOSURE**

An oxide superconducting wire composed of a metal substrate, an intermediate layer vapor-deposited by an ion beam assisted deposition method (IBAD method) on the metal substrate, a  $\text{CeO}_2$  cap layer vapor-deposited on the intermediate layer by the PLD method or another such method, and an oxide superconducting film formed on the cap layer, wherein the thickness of the intermediate layer is no more than 2000 nm, and the thickness of the cap layer is at least 50 nm. The time it takes to form a film by the IBAD method can be shortened, and the orientation of the resulting superconducting film can be improved, by reducing the thickness of the intermediate layer manufactured by the IBAD method as above and increasing the thickness of the cap layer. The oxide superconducting wire can be obtained at low cost and with high critical current density.